

# 6AF4A

## Medium-Mu Triode

### 7-PIN MINIATURE TYPE

#### GENERAL DATA

##### Electrical:

Heater, for Unipotential Cathode:

Voltage (AC or DC) . . . . .	6.3 ± 10%	volts
Current at 6.3 volts . . . . .	0.225	amp

Direct Interelectrode Capacitance  
(Approx.):<sup>a</sup>

Grid to plate . . . . .	1.9	μμf
Grid to cathode and heater . . . . .	2.2	μμf
Plate to cathode and heater . . . . .	1.4	μμf
Heater to cathode . . . . .	2.2 <sup>b</sup>	μμf

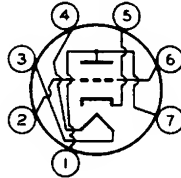
##### Characteristics, Class A<sub>1</sub> Amplifier:

Plate Supply Voltage . . . . .	80	volts
Cathode Resistor . . . . .	150	ohms
Amplification Factor . . . . .	13.5	
Plate Resistance (Approx.) . . . . .	2100	ohms
Transconductance . . . . .	6500	μmhos
Plate Current . . . . .	17.5	ma

##### Mechanical:

Operating Position . . . . .	Any
Maximum Overall Length . . . . .	1-3/4"
Maximum Seated Length . . . . .	1-1/2"
Length, Base Seat to Bulb Top (Excluding tip) . . . . .	1-1/8" ± 3/32"
Diameter . . . . .	0.650" to 0.750"
Dimensional Outline . . . . .	See <i>General Section</i>
Bulb . . . . .	T5-1/2
Base . . . . .	Small-Button Miniature 7-Pin (JEDEC No. E7-1)
Basing Designation for BOTTOM VIEW . . . . .	7DK

Pin 1 - Plate  
Pin 2 - Grid  
Pin 3 - Heater  
Pin 4 - Heater



Pin 5 - Cathode  
Pin 6 - Grid  
Pin 7 - Plate

#### UHF OSCILLATOR

##### Maximum Ratings, Design-Maximum Values:

PLATE VOLTAGE . . . . .	150	max.	volts
GRID VOLTAGE:			
Negative-bias value . . . . .	50	max.	volts
GRID CURRENT . . . . .	2	max.	ma
CATHODE CURRENT . . . . .	24	max.	ma
PLATE DISSIPATION . . . . .	2.5	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode . . . . .	50	max.	volts
Heater positive with respect to cathode . . . . .	50 <sup>c</sup>	max.	volts

← Indicates a change.



RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA  
5-61

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## Typical Operation:

*At frequency of 1000 Mc*

Plate Supply Voltage. . . . .	100	volts
Plate Resistor. . . . .	220	ohms
Grid Resistor . . . . .	10000	ohms
Plate Current . . . . .	17	ma
Grid Current (Approx.). . . . .	750	$\mu$ a

## Maximum Circuit Values:

Grid-Circuit Resistance:

- For fixed-bias operation. . . . . Not recommended
- For cathode-bias operation. . . . . 0.5 max. megohm

<sup>a</sup> With external shield JEDEC No.316 connected to cathode except as noted.

<sup>b</sup> With external shield JEDEC No.316 connected to plate.

<sup>c</sup> The dc component must not exceed 25 volts.

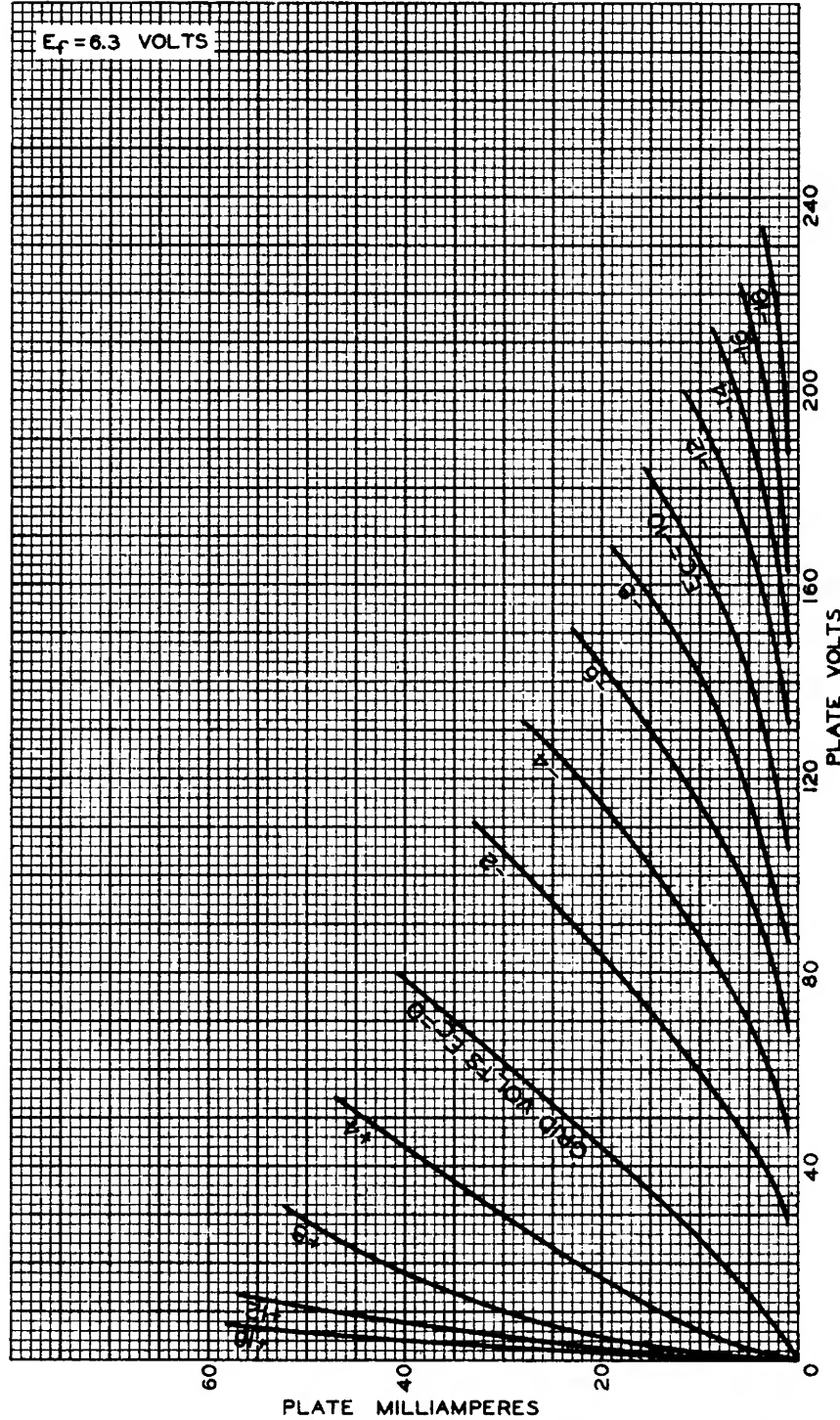




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# AVERAGE PLATE CHARACTERISTICS



FEB. 20, 1952

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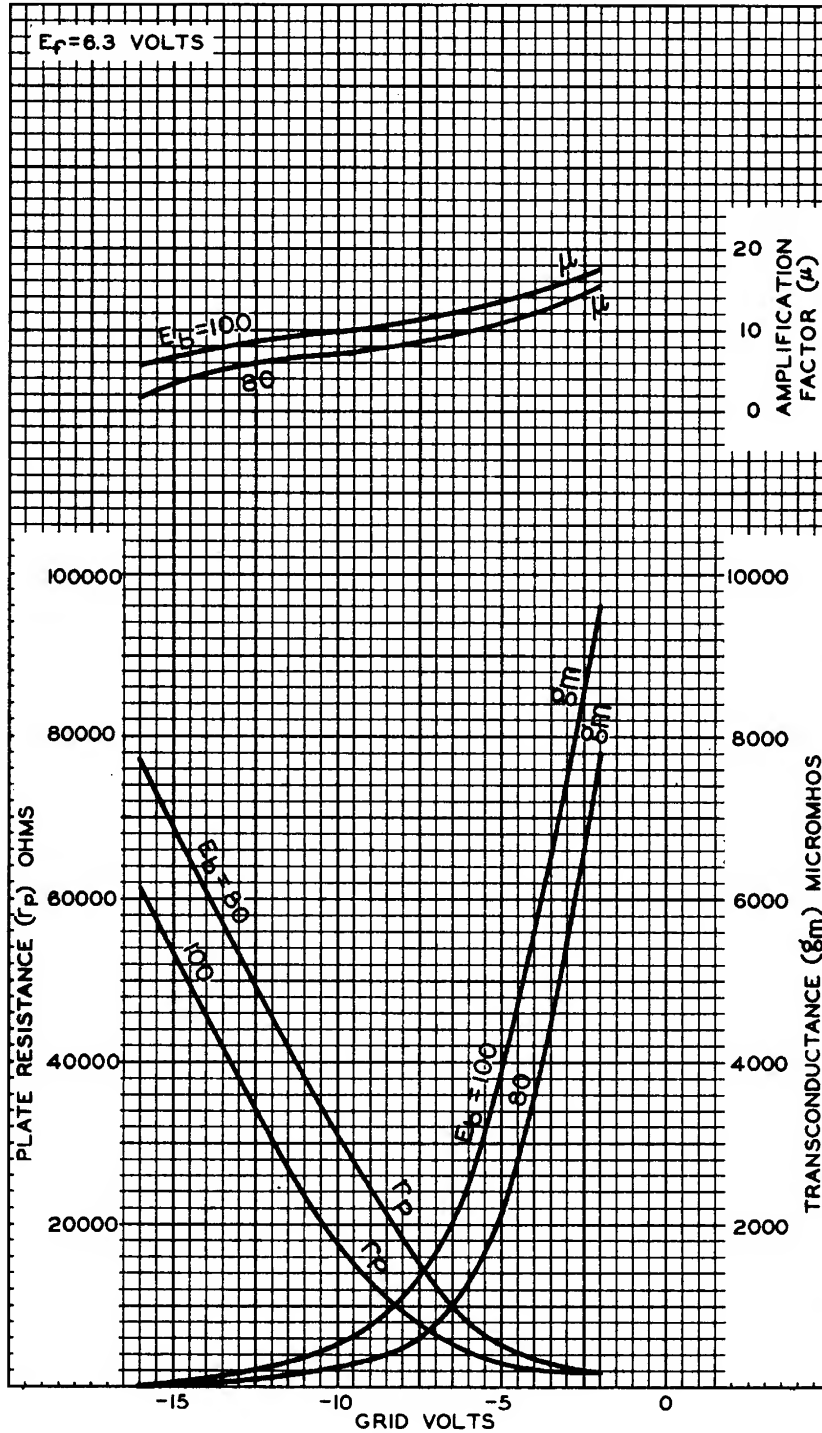
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# AVERAGE CHARACTERISTICS



FEB. 26, 1952

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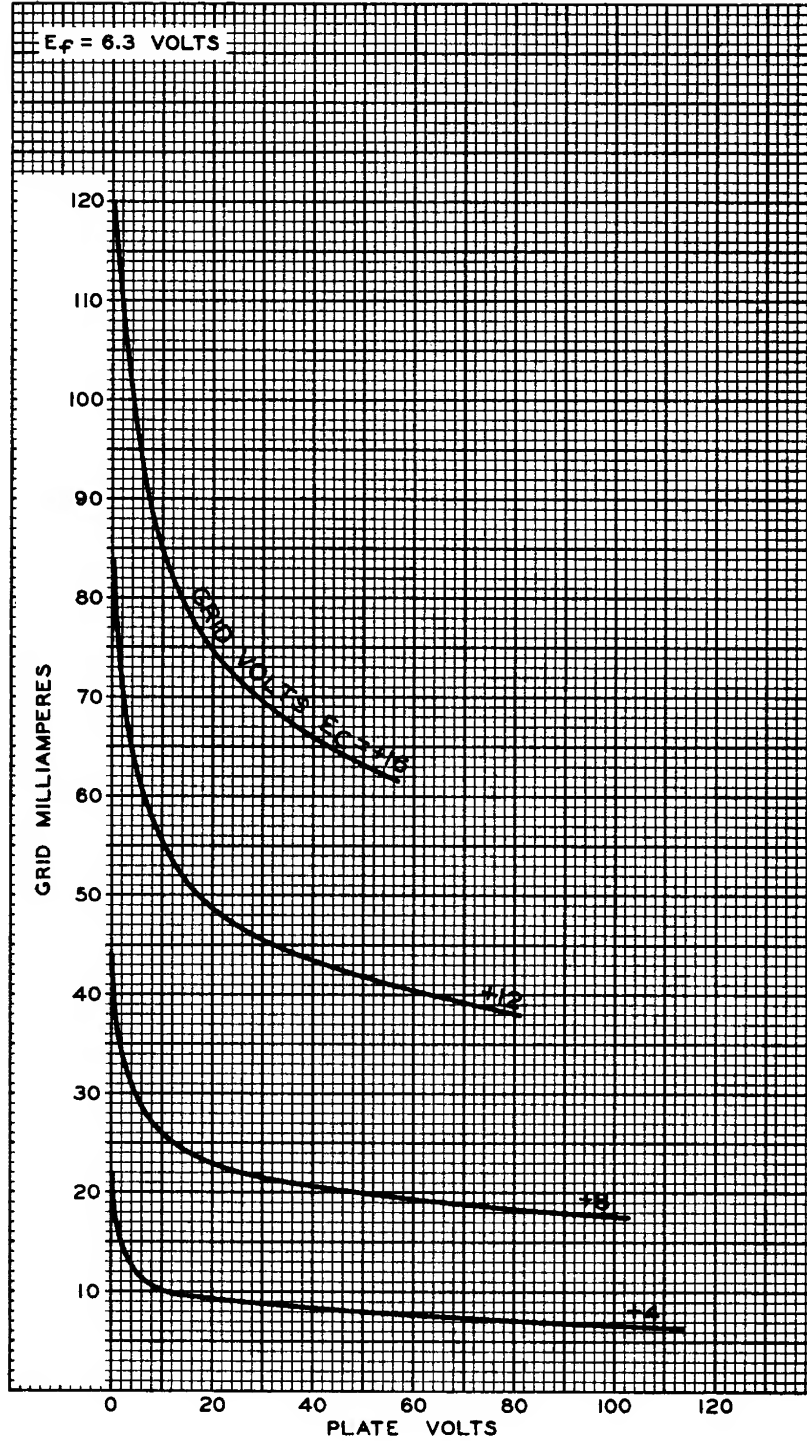
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### AVERAGE CHARACTERISTICS



MAR. 19, 1952

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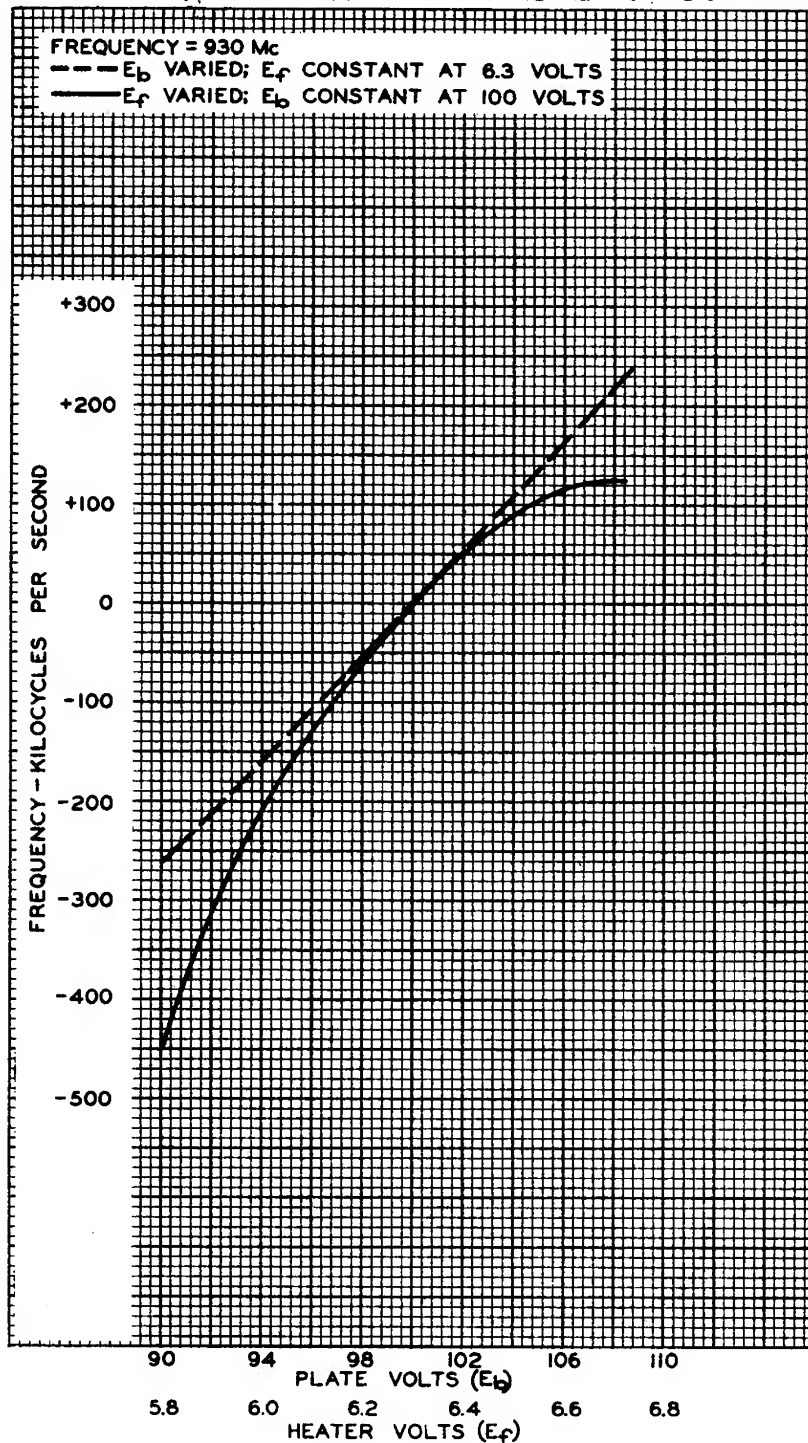
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# FREQUENCY SHIFT CHARACTERISTICS



FEB. 29, 1952

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